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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/669,716	09/25/2003	Hiroshi Watabe	031217	6377

38834 7590 03/02/2005

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EXAMINER

BASINGER, SHERMAN D

ART UNIT PAPER NUMBER

3617

DATE MAILED: 03/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/669,716

Applicant(s)

WATABE ET AL.

Examiner

Sherman D. Basinger

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-4,6-9 and 11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4,6-9 and 11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kanno 820 in view of Gregory.

Kanno 820 discloses a computer program (see figure 8) embodied on a computer-readable medium (the ECU 110) for controlling speed of an internal combustion engine 36 installed in an outboard motor 10 mounted on a

boat 20 and having a propeller 204 powered by the engine to propel the boat, the engine having a throttle

valve 80 that regulates air to be sucked and an actuator 86 connected to the throttle valve to move it in

an opening direction or in a closing direction, comprising the steps of:

detecting the speed of the engine S2;

detecting a trouble occurred in the engine S3; and

discriminating whether the detected engine speed exceeds a predetermined speed when it

is detected that the trouble has occurred in the engine S5.

Kanno 820 does not disclose driving the actuator to move the throttle valve in the closing direction such that the engine speed drops, when it is discriminated that the detected engine speed exceeds the predetermined speed.

Kanno 820 does disclose a disable 270.

Gregory discloses an actuator driving means 18 for driving the actuator 28 to move the throttle valve in the closing direction such that the engine speed drops when it is sensed that the sensor 12 is about to leave the water.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains to use an actuator driving means similar to 18 of Gregory as the disable 270 of Kanno such that engine speed drops when it is discriminated that the detected engine speed exceeds the predetermined speed.

Motivation to do so is to control engine speed through use of the throttle as opposed to disabling a piston or causing any other type of engine speed reduction which is more detrimental to the engine than engine speed reduction through throttle control.

3. Claims 1-4 and 6-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kanno 820 in view of Gregory and Kanno 188.

Kanno 820 discloses a system for controlling a speed of an internal combustion engine installed in an outboard motor mounted on a boat and having a propeller powered by

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the engine to propel the boat, the engine having a throttle valve 80 that regulates air to be sucked, the system comprising an actuator 86 connected to the throttle valve to move it in an opening direction or in a closing direction; an engine speed detecting means 228; an engine trouble detecting means 238; an engine speed discriminating means 256, 262 for discriminating whether the detected engine speed exceeds a predetermined speed when it is detected that the trouble has occurred in the engine; and a disable 270.

Kanno 820 does not disclose actuator driving means for driving the actuator 86 to move the throttle valve in the closing direction such that the engine speed drops when it is discriminated that the detected engine speed exceeds the predetermined speed.

Gregory discloses an actuator driving means 18 for driving the actuator 28 to move the throttle valve in the closing direction such that the engine speed drops when it is sensed that the sensor 12 is about to leave the water.

Kanno 820 also does not disclose the actuator driving means driving the actuator to move the throttle valve in the closing direction by an amount repeatedly such that the engine speed drops gradually.

Kanno 188 discloses in column 5, lines 55-60 that an ECU can be used to open and close the throttle valve with a stepper motor, the stepper motor being the actuator. A stepper motor will open and close the throttle valve by an amount repeatedly such that the engine speed will increase or drop gradually, the repeated amount being each step of the stepper motor.

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It would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains to replace actuator 86 of Kanno 820 with a stepping motor as taught by Kanno 188 and to use the teachings of Gregory to have the disable 270 of Kanno 820 drive the stepping motor provided to Kanno 820 to close the throttle by an amount repeatedly such that the engine speed drops gradually.

Motivation to do so is to control engine speed through use of the throttle as opposed to disabling a piston or causing any other type of engine speed reduction which is more detrimental to the engine than engine speed reduction through throttle control.

The alerting means is either of 266 or 268 of Kanno.

With regard to claim 4, the engine will still run at idle speed.

#### ***Response to Arguments***

4. Applicant argues in the response filed January 19, 2005 that:

The Gregory reference does not disclose an actuator driving means that drives the actuator to move a throttle valve in the closing direction by an amount repeatedly such that the engine speed drops gradually.

After further consideration, it is felt that neither Gregory or Kanno 820 disclose this limitation; however, Kanno 188, newly cited, discloses a stepper motor to open and close the throttle valve. The use of a stepper motor to close a throttle valve would by its very nature move a throttle valve in the closing direction by an amount repeatedly such that the engine speed drops gradually.

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It is felt that it would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains to replace the actuator 86 of Kanno 820 with a stepper motor as taught by Kanno 188.

5. In rebuttal to applicant's argument that Kanno 820 does not disclose an engine speed discriminating means as recited in claim 1, it is pointed out again that such a means is included in 256 and 262 of Kanno 820. As stated in column 14, lines 34-39 of Kanno 820, the alarm pressure threshold is based on engine speed. The engine trouble detecting means is the means sensing lubricant pressure. If the detected engine speed exceeds a predetermined speed (that speed being predetermined by the alarm pressure threshold) for the lubricant pressure, the engine is disabled. The detected trouble is the lubricant pressure.

6. Applicant's argument with regard to claim 11 is rebutted by stating that the teachings of Gregory are combined with Kanno 820 to teach driving the actuator to move the throttle valve in the closing direction. Kanno 820 does teach disabling the engine, Kanno 820 just does not teach closing the throttle valve to slow the engine down. This is taught by Gregory.

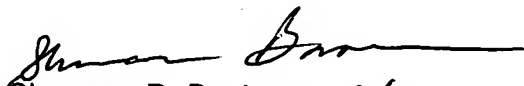
**Conclusion**

7. It is noted that applicant in the amendment filed January 19, 2005 did not comply with the revised amendment practice effective July 30, 2003. The parenthetical expressions for claims 1 and 6 were incorrectly stated as "original". These claims were "currently amended".

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sherman D. Basinger whose telephone number is 703-308-1139. The examiner can normally be reached on M-F (6:00-2:30 ET)/5:30-2:00(after 4/11/05).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Samuel J. Morano can be reached on 703-308-0230. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Sherman D. Basinger  
Primary Examiner  
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2/28/08



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